Appl. No. 10/626,182

Amdt. dated 05/03/2006

Reply to Office Action of 01/03/2006

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing of claims, in the Application.

Listing of claims:

1. (Currently amended) A method of improving fault-based multi-page prefetches comprising the steps of:

determining whether data from a file is being read randomly or sequentially upon receiving a request to read data from the file, the request including a range of data to be read, the range of data spanning more than one page;

determining, if data is being read randomly from the file upon receiving a request to read data randomly from a file, whether previous data has been read from a random access memory (RAM) or from a storage device, the request including a range of data to be read, the range of data spanning more than one page; and

determining, using the range of data, how much data to read; and

attempting to read the data from the RAM memory if previous data has been read from the RAM memory or using the range to read the data all at once from the storage device using only one page fault if previous data has been read from the storage device.

2. Canceled.

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- 3. (Currently amended) The method of Claim 2 1 wherein when a file is opened, it is assigned a value, the value for facilitating the step of determining step whether previous data has been read from the RAM.
- 4. (Currently amended) The method of Claim 3 wherein if it is determined that previous data was read from the RAM memory, the value is increased by an award if the requested data is in the RAM memory.
- 5. (Currently amended) The method of Claim 4 wherein if it is determined that previous data was read from the RAM memory, the value is decreased by a penalty if the requested data is not in the RAM memory.
- (Original) The method of Claim 5 wherein if it is determined that previous data was read from the storage device, the value is increased by the award.
- 7. (Original) The method of Claim 6 wherein the penalty is larger than the award.
- 8. (Currently amended) A computer program product on a computer readable medium for improving fault-based multi-page pre-fetches comprising:

code means for determining whether data from a file is being read randomly or sequentially upon receiving a request to read data from the file, the request including a range of data to be read, the range of data spanning more than one page;

code means for determining, if data is being read randomly from the file upon receiving a request to read data randomly from a file, whether AUS920030464US1

previous data has been read from <u>a random access</u> memory (RAM) or from a storage device, the request including a range of data to be read, the range of data spanning more than one page; and

code means for determining, using the range of data, how much data to read; and

code means for attempting to read the data from the RAM memory if previous data has been read from the RAM memory or using the range to read the data all at once from the storage device using only one page fault if previous data has been read from the storage device.

- 9. Canceled.
- 10. (Currently amended) The computer program product of Claim 9 8 wherein when a file is opened, it is assigned a value, the value for facilitating the code means for determining code means whether previous data has been read from the RAM.
- 11. (Currently amended) The computer program product of Claim 10 wherein if it is determined that previous data was read from the RAM memory, the value is increased by an award if the requested data is in the RAM memory.
- 12. (Currently amended) The computer program product of Claim 11 wherein if it is determined that previous data read was from the RAM memory, the value is decreased by a penalty if the requested data is not in the RAM memory.

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- 13. (Original) The computer program product of Claim 12 wherein if it is determined that previous data was read from the storage device, the value is increased by the award.
- 14. (Original) The computer program product of Claim 13 wherein the penalty is larger than the award.
- 15. (Currently amended) A computer system comprising:

at least one storage device for storing code data; and

at least one processor for processing the code data to determine whether data from a file is being read randomly or sequentially upon receiving a request to read data from the file, the request including a range of data to be read, the range of data spanning more than one page, to determine, if data is being read randomly from the file upon receiving a request to read data randomly from a file, whether previous data has been read from a random access memory (RAM) or from a storage device, the request including a range of data to be read, the range of data spanning more than one page, and to determine, using the range of data, how much data to read, and to attempt to read the data from the RAM memory if previous data has been read from the RAM memory or using the range to read the data all at once from the storage device using only one page fault if previous data has been read from the storage device.

- 16. Canceled.
- 17. (Currently amended) The computer system of Claim 46 15 wherein when a file is opened, it is assigned a value, the value for determining whether data has been read from the RAM memory or from the storage device.

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- 18. (Currently amended) The computer system of Claim 17 wherein if it is determined that previous data was read from the RAM memory, the value is increased by an award if the requested data is in the RAM memory.
- 19. (Currently amended) The computer system of Claim 18 wherein if it is determined that previous data was read from the RAM memory, the value is decreased by a penalty if the requested data is not in the RAM memory.
- 20. (Original) The computer system of Claim 19 wherein if it is determined that previous data was read from the storage device, the value is increased by the award.
- 21. (New) The computer system of Claim 20 wherein the penalty is larger than the award.